This refers to the use of Broadband over Power Line (BPL) systems, specifically Access BPL, as a method of internet communication. One view is that this will enable the use of an existing infrastructure to open the door to mass public use of the internet. Another view is that it is using an existing infrastructure in a service for which it was never designed and for which it may be ill suited.

At these frequencies, power lines are radiating structures. Hence previous tests of high frequency power line carrier current systems in the United Kingdom and elsewhere found significant interference with other services in the HF band. As a result, spread spectrum techniques were introduced. Since this distributes the power over the band, limited tests have noted no direct interference. This was to be expected since it appears essentially as additive white noise. If the use were to rise to even a fraction of that anticipated by the promoters, the overall noise level will increase a large amount. Performance of other services in the HF band would be degraded significantly.

Suppose permission was requested to erect rf transmitters throughout the land and begin broadcast services using spread spectrum covering the HF band. Would the FCC approve such a service? I suspect that the answer is no. Does it seem reasonable to allow such a service merely because it is not advertised as such? Again, I suspect the answer is no.

Consideration should be given to the fact that large numbers of users would be simultaneously accessing the system. Measurements of emitted radiation using broad band sources should be made at a variety of sites, from isolated homes to large apartment buildings. The results should be extrapolated to the expected large number of users to get an estimate of the total noise levels to be anticipated. Such measurements will require the full cooperation of the electric utilities.

Other than as an AM radio listener I have no personal stake in the outcome. I am

merely an engineer who feels that a rather large mistake may be made since the system is being promoted as a means whereby we get "something for nothing". One suspects that "nothing" could turn out to be a rather high cost in degradation to the governmental, commercial, and amateur services that regularly use the HF band.

Dwight S. Heim, PhD(EE)
Professor Emeritus, Univ. of Mich.